

SIEMENS

POLYMOBIL III

SP

Service

Replacement Instructions

Replacing the Collimator

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Register 5
Print No.: RXB8-115.091.01.01.02

Replaces: n.a.

English
Doc. Gen. Date: 06.96

Safety instructions and protective measures

WARNING

- When performing service work and tests, adhere to:
 - the product-specific safety information in the document,
 - the safety instructions RA0-000.012.40... in Register 2 of the POLYMOBIL III binder, as well as
 - the general safety information contained in Register 2 of the TI-folder / ARTD Part 2 (CD-ROM) .
 - After switching off the system, there is approximately 300 V DC present in the operating console for the main inverter .
The yellow LED V26 on board D920 will be glowing.
The voltage will drop within about 1.5 minutes to approximately 12V ; LED V26 will go out.
 - Tests and adjustments that must be performed with radiation ON, are identified by the radiation warning symbol ☸.
During these types of adjustments, radiation protective clothing must be worn.
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- Connect the POLYMOBIL III only to a line voltage supply (line voltage receptacle) that complies with the requirements of VDE 0107 or corresponds to the local national regulations.
 - Disconnect the POLYMOBIL III at the line voltage **OFF** switch on the operating console and disconnect the **line voltage plug** prior to any service work.

Required documents

- Service Instructions RXB8-115.061.01...
- Maintenance Instructions RXB8-115.101.02...

Required measurement devices and tools

- Standard service equipment
- Protective conductor test device
"Bender safety meter UNIMET 100ST" Item No. 51 38 727 Y07666

Required materials

- 1 collimator Item No. 18 13 190 G037I
- 1 rotating flange Item No. 18 13 430 X0551
- 1 cable harness Item No. 18 15 039 X041I
- 4 nylon plugs, natural color (09070322)

NOTICE

This material will be automatically delivered with the Replacement Instructions when ordering the old collimator Item No. 18 04 470 G0371.

General Instructions

The collimator (with rotating knobs) Item No. 18 13 190 G0321 will still be delivered for Polymobil III. For initial installation, you must first modify the rotating flange on the single tank.

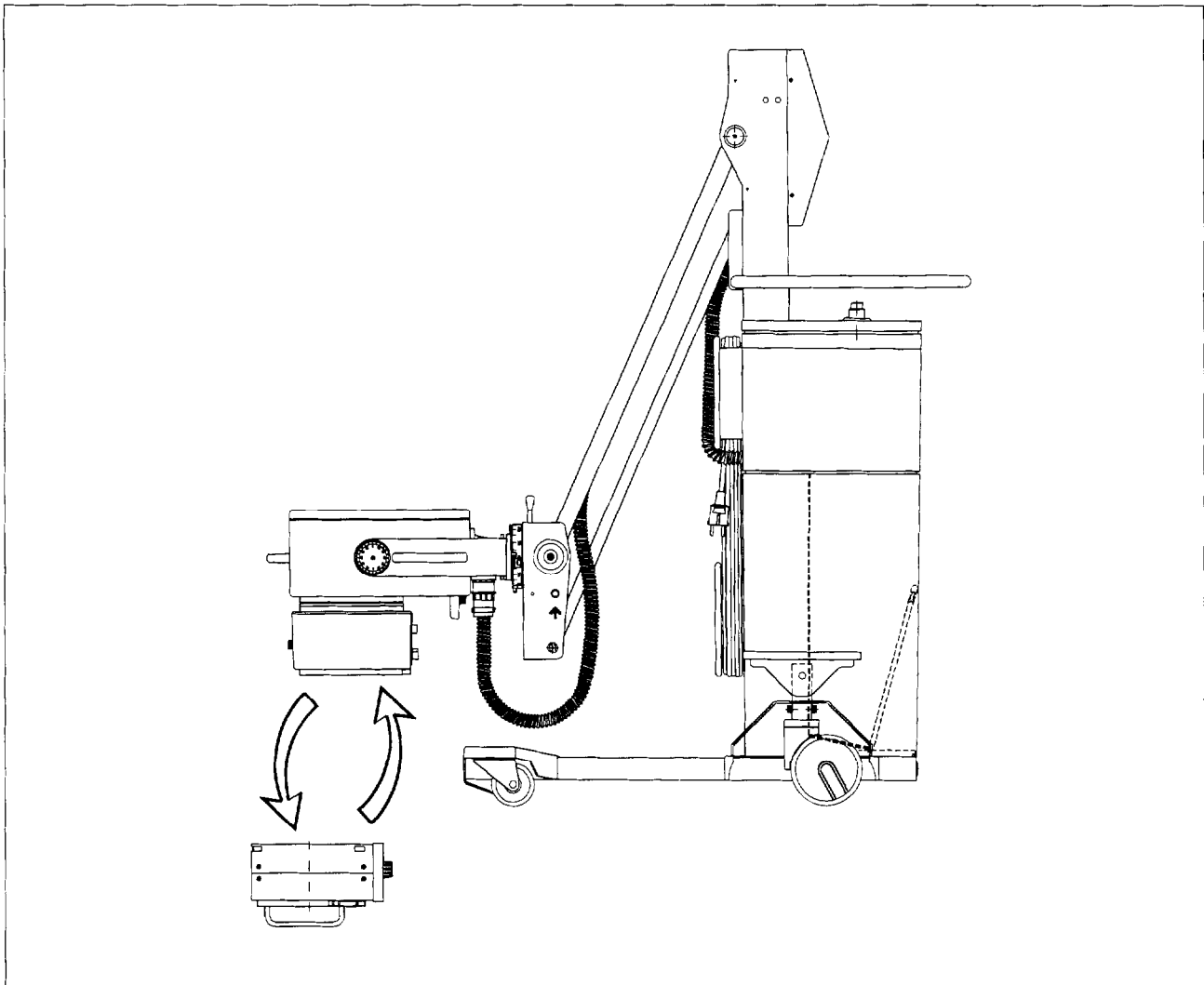


Fig. 1

Removing the tube assembly and the collimator

- Raise the arm system above the horizontal plane and loosen the corrugated hose at plug K4.
- Move the arm system to the lowest adjustment and check that the safety lock on the support arm is locked in position.

NOTICE

The system can no longer be raised from the locked position.

- Loosen both screws (1/ Fig. 2) on the tube support bracket with the 8 mm Allen key approximately 2 revolutions.
- Lift the tube assembly with the collimator vertically upwards and place the collimator on a soft pad.

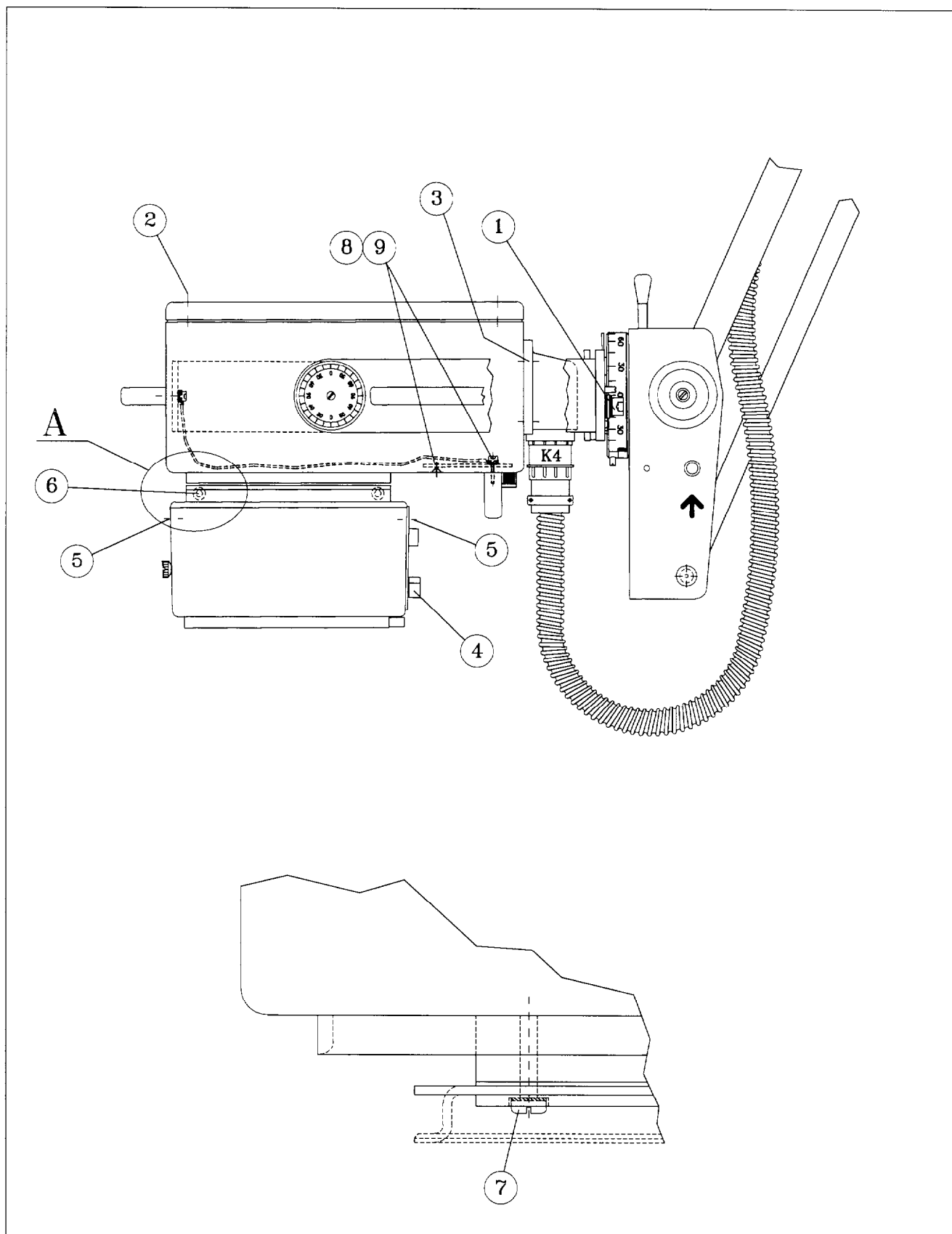


Fig. 2

- Remove the 4 Allen screws (refer to 2/ Fig. 2) from the cover of the single tank on the top side of the tube assembly and take off the cover.
- Loosen the screws (3/ Fig. 2) and remove the flange.
- Loosen the screws (11/ Fig. 3) for the grounding cable.
- Desolder the 4 wires for "mA" and switch "S1".
- Remove the 8 Allen screws for board D1.
- Rotate the single tank, so that the collimator is facing up.
- Remove the knobs of the collimator blades (4/ Fig. 2).
- Loosen the screws (5/ Fig. 2) of the collimator housing.
- Remove the collimator cover.
- Remove the cable from the corresponding connecting terminal (X1 / X2).
- Loosen the screws (6/ Fig. 2) for the retaining clamp, lift the collimator off and place it to the side. The rotating flange is now visible.
- Loosen the screws (7/ Fig. 2) for the rotating flange and remove it.

Changing the rotating flange and the cable harness

- Remove the retaining bracket for the single tank. To do this, open both lateral angle indicators and loosen the 3 Allen screws for the joint underneath.
- Remove the wires of the collimator through the hole in the cover and remove the old cable harness with board D1. (see Fig. 3)
- Remove the lower PVC cover of the single tank.
- Remove the handle by loosening the screws (8, 9/ Fig. 2) and take out the inner reinforcement. (This will no longer be needed.)
- Press the nylon plugs from the material supplied into the 4 holes for the handle.

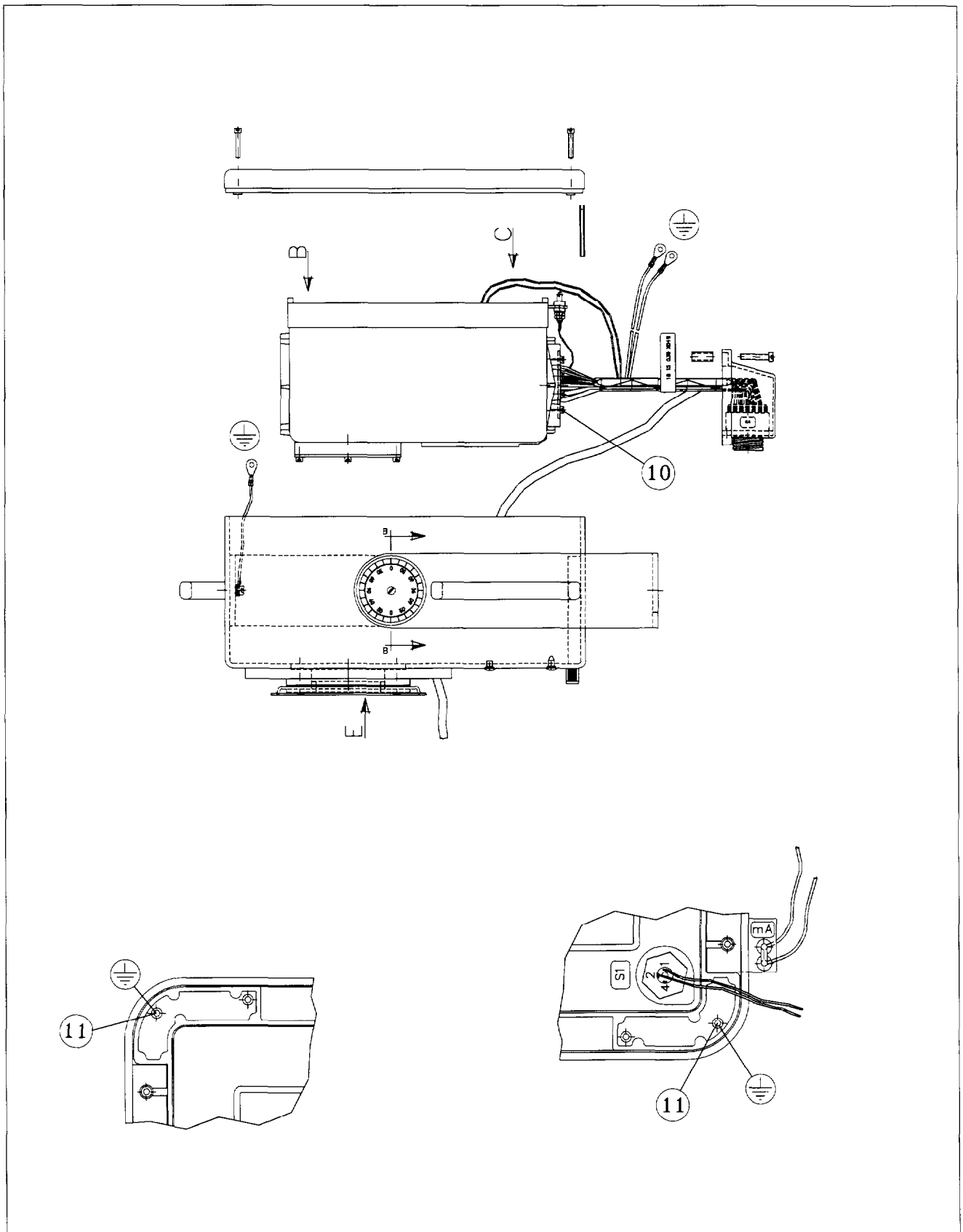


Fig. 3

- Install the new cable harness on the tube assembly. You will need to attach board D1 with the 8 Allen screws (10/Fig.3). Secure the screws with threadlocker.
- Install the PVC housing on the single tank. Hierbei das Kabel, das zur Tiefenblende führt, durch das Bohrloch des Gehäuses stecken und Strahlenaustrittsfenster am Gehäuseausschnitt anpassen.
- Insert plug connector K4 into the cover and attach it to the single tank using the spacer. (3/Fig.2).
- Install the new rotating flange with the screws (7/Fig.2). The flange should be installed in the "0" position.
- Reconnect the ground wires (11/Fig.3).
- Remove the upper and rear cover of the collimator.
- Feed the wire through the upper cover plate (as in Fig.4) at the back of the collimator and connect it to connector terminal K11.
Pin1 =red; Pin 2 = blue; Pin 3 =black; Pin 4 = gray; protective ground
- Reinstall the cover of the collimator.

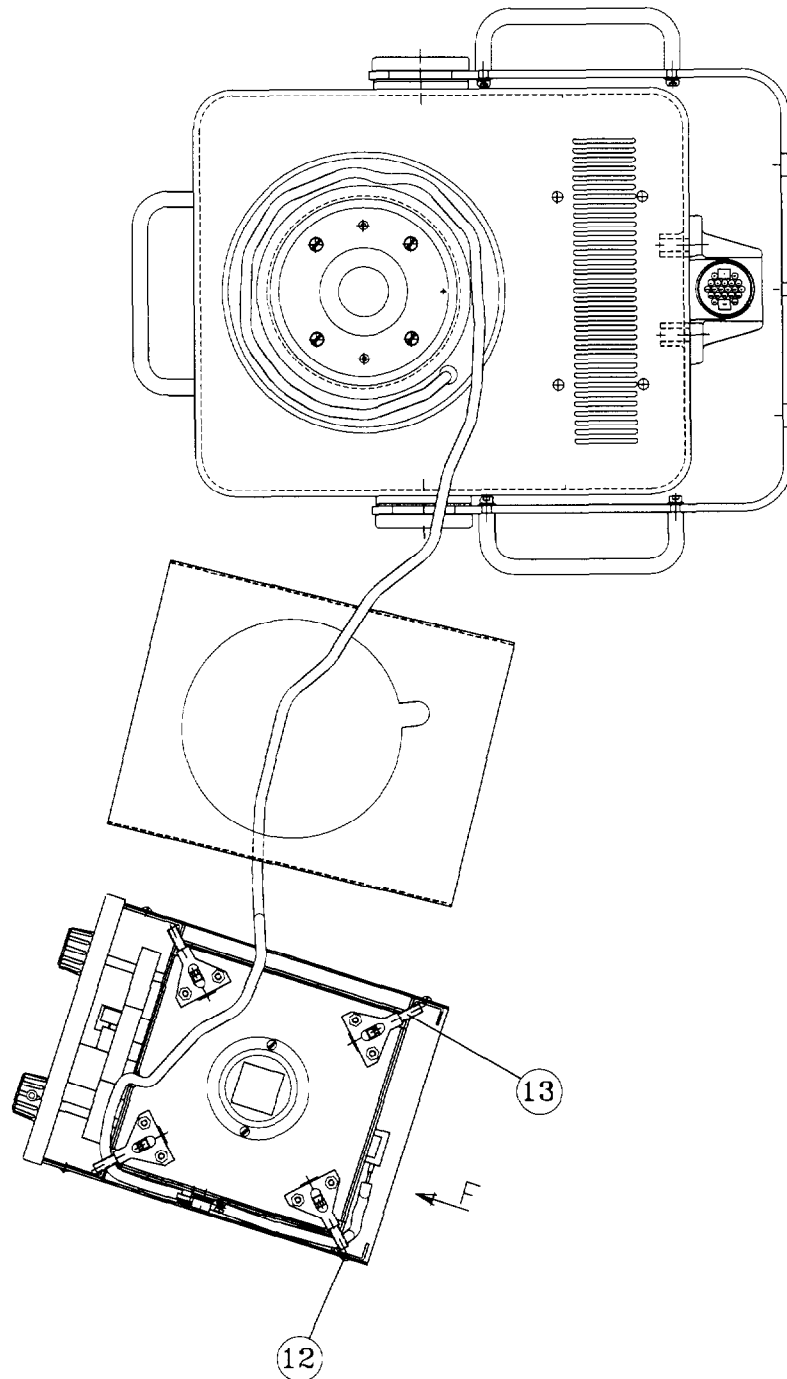


Fig. 4

- Wrap the wires clockwise (as in Fig. 4) around the rotating flange and install the collimator with the 4 Allen screws (13/ Fig. 4).
(In the "0" position, the rotary handles point in the direction of plug K4).
- Insert the single tank with the collimator in the tube support bracket and secure with the 2 Allen screws.
- Solder the cable harness wires on the upper side of the single tank red and black to the "mA" bridge and black and gray to the pressure switch S1 pin 1/2.
- Reinstall the single tank cover on the upper side of the tube assembly.
(There is a safety sticker located above connector k4.)
- Unlock the safety latch and raise the arm system above the horizontal plane.
- Reconnect the corrugated hose to connector K4.
- Connect the system to the line voltage receptacle and switch it on.
- Check the function of the push buttons and the light localizer lamp.
- Check the collimator rotation for +/- 45 degrees.
- Check the coincidence of the light and radiation fields and adjust, if necessary.
(refer to the service instructions / maintenance instructions "Coincidence of light and radiation field").
- Check the mounting and the locking mechanism of the single tank.
(refer to the maintenance instructions)
- Test the protective ground conductor.
- Perform a function check.

Changes from the previous version

First version.

TD SP 2 / Friedrich
TD SP 1 / Groß
SMS Iselin / O'Donnell